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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of the Commission's Rules )  
To Ensure Compatibility with )  
Enhanced 911 Emergency Calling Systems )  
)

CC Docket No. 94-102  
                    

Chief, Wireless Telecommunications Bureau

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PETITION OF CENTURYTEL WIRELESS, INC. FOR LIMITED WAIVER

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## SUMMARY

CenturyTel Wireless, Inc. ("CenturyTel"), on behalf of its commercial mobile radio service ("CMRS") subsidiaries and affiliates, respectfully requests a limited waiver of the Commission's Phase II E911 requirements. CenturyTel, whose CMRS markets are mostly in rural areas, continues to work diligently toward deployment of a network-based solution in its wireless systems. CenturyTel has not yet received a valid public safety answering point ("PSAP") request for Phase II E911 service, and therefore does not require a waiver of the October 1, 2001, deadline. However, out of an abundance of caution, CenturyTel is submitting this limited petition for waiver because CenturyTel is unable, due to conditions outside of its control, to complete testing and implementation of its network-based solution for several months, an essential condition to meeting PSAP Phase II requests that may be received in the near term.

CenturyTel is also concerned that rural carriers, such as CenturyTel, are bearing a disproportionate share of the burdens for implementation of E911 Phase II service. While there is no doubt that such service is very important, the Commission itself has recognized that rural carriers face much steeper hurdles for deployment of network-based solutions in comparison to carriers in urban markets. Furthermore, large, nationwide carriers that also provide service in rural markets are able to distribute the costs of E911 Phase II over a much larger customer base, while carriers with a rural focus cannot do so.

CenturyTel therefore respectfully requests that the Commission grant the company a limited, specific waiver to enable it to meet precise, scheduled goals to come into full compliance with the Commission's E911 Phase II requirements.

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FEDERAL COMMUNICATIONS COMMISSION  
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Chief, Wireless Telecommunications Bureau

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PETITION OF CENTURYTEL WIRELESS, INC. FOR LIMITED WAIVER

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CenturyTel Wireless, Inc., and its affiliated commercial mobile radio service ("CMRS") carriers (collectively "CenturyTel"),<sup>1</sup> hereby respectfully request a limited waiver of the current Phase II E911 compliance requirements. The FCC's rules require CMRS carriers to provide Phase II location information no later than six months after a request from a Public Safety Answering Point ("PSAP") if they are implementing a network-based solution, or as of October 1, 2001 if they are implementing a handset-based solution. CenturyTel is on record as implementing a network-based solution<sup>2</sup> but has not yet received any valid PSAP requests for Phase II service. As discussed below, after exploring a variety of alternatives for providing Phase II location information, CenturyTel has serious concerns about its ability to deploy Phase

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<sup>1</sup> A list of CenturyTel's carrier subsidiaries and partnerships is attached hereto as Exhibit A.

<sup>2</sup> See CenturyTel, Inc., Report on Implementation of Wireless E911 Phase II Automatic Location Information filed Nov. 9, 2000 in CC Docket No. 94-102, at 2 ("CenturyTel E911 Report").

II E911 service in strict accordance with the FCC's requirements due to circumstances beyond its control. Out of an abundance of caution, CenturyTel therefore respectfully requests a limited waiver of the FCC's Phase II rules to allow implementation on a graduated schedule due to the unique challenges in implementing Phase II E911 solutions in rural areas such as CenturyTel's.

## **I. BACKGROUND**

CenturyTel provides wireless services to mostly rural and small urban markets in six states. CenturyTel uses the TDMA air interface throughout its network.

CenturyTel clearly is supportive of the Commission's initiative to enable wireless callers to obtain emergency assistance more rapidly and efficiently through transmission of enhanced location information. As the Commission is aware, however, its Phase II E911 implementation schedule is quite ambitious. While great strides have been made toward realization of the Commission's E911 goals, there have been some setbacks as well.

Certain fundamental assumptions that existed when the Commission formulated its current Phase II wireless E911 rules have changed, and these changes have combined to disproportionately impact rural carriers. These assumptions included the commercial availability of a handset-based solution, and the availability of a cost-recovery mechanism to defray the expenses associated with compliance. While CenturyTel is committed to deploying Phase II E911 service as quickly as possible, these changed circumstances cause CenturyTel serious concern regarding its ability to meet the FCC's implementation timeframe for future PSAP requests.

Aside from its long-term concerns, CenturyTel also faces technical gating items which preclude it from immediately implementing a network-based solution were it to receive a PSAP request for Phase II service in the near-term. Critical switch upgrades necessary to process Phase

II E911 information will not be delivered, let alone tested or installed, by CenturyTel's switch vendor until the end of 2001, at the very earliest, and full implementation will take additional time. Accordingly, CenturyTel seeks a limited waiver of the Commission's Phase II E911 compliance standards for the reasons set forth below.

## **II. WAIVER STANDARD**

The Commission may grant a waiver of its rules if it is shown that (i) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest; or (ii) in view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.<sup>3</sup> In addition, in the context of Phase II E911 compliance, the Commission has indicated that a waiver of the rules is warranted where technology-related issues or other exceptional circumstances make it impossible for a carrier to meet the October 1, 2001 deadline.<sup>4</sup>

The Commission has stated that waivers should be "specific, focused and limited in scope, and with a clear path to full compliance;"<sup>5</sup> however, "if no solution is available that fully complies, the carrier will be expected to employ a solution that comes as close as possible, in terms of providing reasonably accurate location information as quickly as possible."<sup>6</sup> As demonstrated below, unique circumstances and technology-related issues well beyond

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<sup>3</sup> 47 C.F.R. § 1.925.

<sup>4</sup> *See Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, Fourth Memorandum Opinion and Order, 15 FCC Rcd 17442, 17457 (2000) ("Fourth MO&O").

<sup>5</sup> *Id.*

<sup>6</sup> *Id.* at 17457-58.

CenturyTel's control have combined to preclude the company from strictly complying with the FCC's rules on Phase II E911 implementation.

### **III. NO HANDSET-BASED SOLUTION IS AVAILABLE FOR TDMA SYSTEMS.**

When the Commission amended its Phase II E911 rules in October 1999, it envisioned carriers being able to choose from an array of network-based and handset-based solutions in order to meet the implementation deadline.<sup>7</sup> The Commission viewed this as a significant benefit, noting that competition in the marketplace would likely reduce carrier costs and encourage innovation. Significantly, the Commission's Third R&O acknowledges that the two most common network-based solutions, time difference of arrival and angle of arrival, are largely unworkable for rural carriers in conjunction with the current configuration of their networks, and would require great expense for rural carriers to implement.<sup>8</sup>

Observing these limitations, the Commission anticipated that most rural carriers would implement a handset-based solution because "[h]andset-based solutions seem well suited to rural areas."<sup>9</sup> As the Commission recognized, handset and hybrid solutions should require far less investment in network upgrades and prove overall to be less costly on a per customer basis for

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<sup>7</sup> "Competition among a broad range of technologies and providers will stimulate actual deployment of efficient systems." *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, 14 FCC Rcd 17388, 17403 (1999) ("Third R&O").

<sup>8</sup> Time difference of arrival is based upon triangulating the location of a mobile caller based on three location fixes from three cell sites. In rural areas, however, it is very unusual for a mobile caller to be within the coverage area of three cell sites. Thus, rural carriers may need to add additional cell sites, in addition to upgrading equipment at each transmission tower, in order to provide the fixes necessary to yield an accurate location report under this method. In addition, angle of arrival is dependent upon the carrier's use of sectorized antennas. Many rural networks, including CenturyTel's, do not employ the use of sectorized antennas, and therefore this network-based solution would also require substantial equipment upgrades in order to yield accurate location data.

<sup>9</sup> *Third R&O*, at 17400-01.

rural carriers. The FCC envisioned that the lower implementation costs of handset solutions would facilitate development of effective cost recovery mechanisms for rural areas, resolving the issue of recovering the high start-up costs of network-based systems.<sup>10</sup>

Over the past several months, CenturyTel has frequently contacted its handset vendors, Audiovox, Motorola, and Nokia, regarding their plans for development of a TDMA-compliant handset-based solution. It has become evident that none of CenturyTel's handset manufacturers will be devoting resources to develop such a solution.<sup>11</sup> Manufacturers instead are focusing their efforts on GSM and CDMA development as larger carriers such as AT&T Wireless migrate away from TDMA to these technologies to prepare for third generation applications. As the number of TDMA-based carriers shrinks and manufacturers devote fewer resources to TDMA research and development, the likelihood of a handset-based solution becoming available in the future is extremely slim.<sup>12</sup>

CenturyTel chose TDMA technology and constructed its network years ago, before the advent of Phase II E911 obligations. Having reasonably selected this technology and installed a Nortel Networks ("Nortel") TDMA system, CenturyTel is foreclosed from availing itself of a handset-based solution to meet its Phase II E911 obligations because such technology does not exist. In its effort to comply with FCC rules and to realize the public safety benefits associated

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<sup>10</sup> *Id.*

<sup>11</sup> Please see attached as Exhibit B Affidavit of Brent Austin concerning the response CenturyTel has received from its handset vendors confirming their lack of development a TDMA-compliant handset-based solution. These experiences have been shared by other carriers investigating TDMA handset solutions, including AT&T Wireless, Cingular, and United States Cellular Corporation ("USCC").

<sup>12</sup> *See, e.g.,* AT&T Wireless Services, Inc. Request for Waiver of the E911 Phase II Location Technology Implementation Rules filed April 4, 2001 in CC Docket No. 94-102, at 10 ("AT&T Wireless Waiver").



with providing PSAPs more accurate location information, CenturyTel's only alternative is to proceed with a network-based technology. As a rural carrier, however, CenturyTel faces significant challenges to implement such a solution throughout its network.

**IV. AS A RURAL CARRIER, IMPLEMENTING A NETWORK-BASED SOLUTION PRESENTS SUBSTANTIAL TECHNICAL AND FINANCIAL CHALLENGES.**

**A. Switch Software Upgrades Necessary to Evaluate and Implement Network-Based Solutions Will Not Be Delivered, Let Alone Tested and Installed, Until the End of 2001, at the Earliest.**

Over the past several months, CenturyTel has been reviewing the network-based technologies offered by Sigma-One Communications, Grayson Wireless, and TruePosition.<sup>13</sup> At this stage, CenturyTel believes that Grayson Wireless offers the most promising solution for CenturyTel's markets. However, in order for CenturyTel to evaluate and implement Grayson Wireless' or any other network-based solutions, it requires critical software upgrades to its switches. Nortel, CenturyTel's switch vendor and the only source of these critical upgrades, reports that they will not be available until the end of 2001, at the earliest.<sup>14</sup> Without these upgrades, it is simply not possible for CenturyTel to test and implement any network-based solution.

CenturyTel has been in regular contact with Nortel regarding the projected delivery of upgrades for Phase II E911 service. Despite CenturyTel's timely inquiries, the upgrades will not be available until the end of this year, at the earliest. (CenturyTel believes this is true for virtually all carriers utilizing the same Nortel switch model that is to receive the software

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<sup>13</sup> CenturyTel E911 Report at p. 2.

<sup>14</sup> See Exhibit C.

upgrade, and may include some CDMA carriers as well as TDMA carriers.<sup>15</sup>) Nortel also acknowledges that delivery could be delayed in the event its testing reveals technical or other interoperability issues.<sup>16</sup> Moreover, four of CenturyTel's Nortel switches also require a hardware upgrade to ready the switches for the software upgrade. Full implementation of Phase II E911 will then require additional time once these software and hardware upgrades are installed and operational.

B. Network-Based Solutions Are Disproportionately Expensive for Rural Carriers Such as CenturyTel, Causing CenturyTel Serious Concern Regarding Implementation System-Wide.

In addition to the technical gating issue to Phase II E911 implementation resulting from the unavailability of critical software upgrades, CenturyTel reiterates its concerns with implementing a network-based solution throughout its rural network. The cost of necessary network upgrades, combined with the relatively low density of customers in rural areas, imposes extremely high per customer costs for network-based solutions in rural areas.<sup>17</sup> When considered on a per site or on a per subscriber basis, it is unduly burdensome, and even discriminatory, to require CenturyTel to incur these expenses in order to fully comply with the Commission's Phase II E911 requirements without a mechanism for CenturyTel to recover its costs.

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<sup>15</sup> See, e.g., Sprint PCS Supplemental Phase II Implementation Report and Request for Temporary Limited Waiver filed July 30, 2001 in CC Docket No. 94-102 at 5 and 15-16; see also United States Cellular Corporation Petition for Waiver of Sections 20.18(e) and (g) of the Commission's Rules filed September 10, 2001 in CC Docket No. 94-102 at 13.

<sup>16</sup> Nortel informed the Commission nearly a year ago of potential E911 Phase II implementation delays due to a lack of the necessary switch hardware and software. See Letter from Raymond L. Strassburger, Vice President, Global Government Relations, Telecom, Internet and Advanced Technology Policy, Nortel Networks, to Ms. Magalie Roman Salas, Secretary, FCC, dated September 26, 2000 and filed in CC Docket 94-102 (advising the Commission of delays in the availability of critical switch software and hardware elements necessary for implementation of E911 Phase II solutions).

<sup>17</sup> Third R&O, at 17400-01.

When the Commission eliminated cost-recovery for Phase II E911, it envisioned carriers controlling their implementation costs through choices in technology. Because such choices do not truly exist, the absence of a cost-recovery mechanism contributes to a discriminatory condition in the marketplace. Urban carriers, for which network-based solutions are suited, face a much lower cost of compliance on a per subscriber basis, and have a much greater potential pool of subscribers to defray costs as compared to rural subscribers. Urban carriers also can avoid some of the most costly aspects of network-based solutions, such as construction of additional cell sites, in order to achieve the necessary triangulation ability for Phase II E911 location purposes. In combination, these two typical characteristics of Phase II E911 network solution implementation in rural markets – fewer customers but higher costs in proportion to the size of the market – create an unfair situation that discriminates against rural carriers. Thus, requiring CenturyTel to incur the costs associated with full-scale implementation, particularly now that there is no FCC-imposed cost recovery for Phase II implementation, would impose an undue burden on CenturyTel and its subscribers.

As CenturyTel has previously advised the Commission, it estimates that use of a network-based solution will likely cost approximately \$30,000 per base station to implementation in metropolitan service areas, and approximately \$42,000 per base station in rural service areas. Approximately 70 percent of CenturyTel's wireless service areas are in rural regions, with the remaining 30 percent in smaller metropolitan areas. CenturyTel therefore estimates its implementation costs, assuming use of Grayson Wireless technology, at approximately \$35 million under a network-based solution; given that CenturyTel has

approximately 819,000 subscribers, the costs would be approximately \$40.93 per subscriber, a staggering amount for a company the size of CenturyTel.<sup>18</sup>

Given that CenturyTel competes with the very largest nationwide wireless carriers in a number of rural markets, and that these large carriers have the ability to spread their costs over much greater subscriber bases, CenturyTel is concerned about its ability to remain competitive with these carriers, particularly in CenturyTel's rural markets. The Commission's Phase II implementation rules are intended to be technologically and competitively neutral.<sup>19</sup> Clearly, the Commission did not intend to saddle rural carriers and subscribers with disproportionate costs of Phase II E911 compliance; however, the absence of a cost-recovery mechanism and the current state of technology combine to cause this result.

Congressman Rick Boucher, while supporting the concept of E911 location capabilities, has expressed his views to the Commission about the possible disproportionate impact Phase II E911 deployment may have on rural carriers. In a letter to Chairman Michael Powell, Congressman Boucher stated:

I am concerned that carriers serving rural markets may be at a particular disadvantage in complying with the Phase II implementation time frames due to the unavailability of location solutions which have been proven to meet the Commission's accuracy requirements in rural applications, as well as the lack of economies of scale. This lack of scale ... could actually drive the per customer costs of E911 Phase II compliance so high that some cost-sensitive subscribers might drop their rural wireless service.<sup>20</sup>

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<sup>18</sup> These costs assume, as CenturyTel has been informed by Grayson Wireless, that CenturyTel will not need to construct additional base stations in any of its CMRS systems solely to ensure E911 Phase II compliance. Installation of new base stations typically costs around \$500,000, and CenturyTel's costs would increase accordingly if they were to be required.

<sup>19</sup> *Third R&O* at 17,405.

<sup>20</sup> Letter from Rick Boucher, Member of Congress, to Michael Powell, Chairman of the FCC, dated July 25, 2001. Chairman Powell responded to Congressman Boucher's letter, suggesting that the handset-based solution would provide an avenue for rural carriers to avoid the costs of network-based technologies. Letter from Michael K. Powell, Chairman of the FCC, to

CenturyTel concurs with Congressman Boucher on each of these points.

Implementing Phase II E911 service across the country will ultimately inure to the benefit of everyone nationwide, both rural and urban subscribers alike. Accordingly, it would be unjust for either CenturyTel or CenturyTel's subscribers to bear a disproportionate share of the implementation costs, particularly when such increased costs are the result of the technical limitations beyond CenturyTel's control. To avoid this unintended consequence, CenturyTel respectfully requests a limited waiver of the Phase II E911 rules for future PSAP requests. Specifically, as described below, CenturyTel proposes a graduated implementation schedule for future PSAP requests to mitigate the undue financial burden compliance places on rural carriers.

C. CenturyTel Proposes a Graduated Implementation Schedule to Ease the Technical and Financial Burdens of Compliance.

In light of the technical and financial challenges associated with meeting the Commission's Phase II E911 requirements, CenturyTel proposes to take the following steps to come into compliance with the Commission's rules as quickly as possible:

- Beginning December 1, 2001, CenturyTel will file quarterly updates with the FCC regarding its progress on E911 implementation. These quarterly updates will include information on the status of the switch upgrades and the anticipated timeframe for implementation of a location solution.
- By March 31, 2002, CenturyTel expects to have completed at least one switch upgrade necessary to enable testing of its planned Phase II E911 network-based

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the Honorable Rick Boucher of the U.S. House of Representatives, dated August 23, 2001. While CDMA carriers in rural markets are apparently able to obtain handset-based E911 Phase II equipment, TDMA carriers, unfortunately, are not expected to ever have that opportunity, as discussed at greater length in the instant Petition.

solution. However, the exact receipt, installation, and testing date for this upgrade is subject to the control of CenturyTel's switch vendor, Nortel.

- By May 31, 2002, CenturyTel anticipates that all switch upgrades needed to provide Phase II E911 location information will be complete. However, again, the exact receipt, installation and testing dates for its upgrades are subject to the control of CenturyTel's switch vendor, Nortel.
- By May 31, 2002, CenturyTel expects to have completed evaluation and testing of Grayson Wireless' network-based solution and to have entered into a purchase agreement for such solution. This date coincides with the anticipated completion of the Nortel switch upgrades throughout CenturyTel's systems, allowing deployment of the network-based solution to commence.
- With respect to PSAP Phase II requests (which, again, CenturyTel has not yet received), CenturyTel expects to be able to provide Phase II E911 location information to 50 percent of the pertinent service area within 9 months of the date by which its network-based solution is tested, currently projected to be May 31, 2002, based on information provided by CenturyTel's switch vendor, Nortel; and 100 percent of the pertinent service area within 18 months, based on the same timeframe.

#### **V. CENTURYTEL HAS SATISFIED THE COMMISSION'S WAIVER STANDARD**

The Commission recently reiterated that waivers would be available to ease the burden of compliance for carriers facing undue costs.<sup>21</sup> Throughout this proceeding the Commission has acknowledged that there would be instances where complying with the Phase II E911 rules

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<sup>21</sup> See *Corr Wireless Communications, L.L.C. Petition for Waiver* filed June 22, 2001 in CC Docket No. 94-102, at 6 (citing *U.S. Cellular, et al. v. FCC*, Case No. 00-1072, D.C. Cir., FCC Brief at 429).

would cause a substantial burden,<sup>22</sup> and that unique challenges face rural carriers in terms of Phase II E911 compliance.<sup>23</sup> Certain mechanisms intended by the Commission to help alleviate the burden of compliance for rural carriers have not materialized. Specifically, manufacturers are not developing handset-based solutions for TDMA-based systems, foreclosing this alternative for TDMA carriers such as CenturyTel. Vendors require substantial upfront costs just to test network-based solutions, exacerbating the already significant financial burden of compliance. Moreover, the lack of critical software upgrades from CenturyTel's switch vendor presents additional technology-related hurdles outside of CenturyTel's control, further frustrating the company's Phase II compliance efforts and delaying implementation.

Full compliance based on existing technology and cost would impose a discriminatory and anticompetitive burden on CenturyTel and its rural subscribers, contrary to the public interest. In order for the Phase II E911 initiative to be competitively neutral in accordance with the Commission's stated goals, and not contravene the public interest, the costs of Phase II implementation must be equally borne by all subscribers. CenturyTel's request to provide Phase II E911 location information pursuant to a graduated implementation schedule strikes an appropriate balance of public interest objectives by providing PSAPs more accurate location information than that available under the Phase I E911 rules, without disproportionately burdening rural carriers or subscribers. It provides a path to full compliance, as required by the Commission, and periodic updates to ensure that CenturyTel remains on schedule. Thus, this request satisfies the Commission's standard for a waiver.

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<sup>22</sup> *Fourth MO&O*, at 17457.


<sup>23</sup> *Id.* at 17465.

## VI. CONCLUSION

The Commission has recognized that rural carriers may face undue challenges in Phase II E911 deployment, and has indicated that waivers would be appropriate in these circumstances. CenturyTel must face not only the challenges of rural carriers, but also must overcome technical gating items which preclude Phase II E911 implementation in the near-term, and stand to delay implementation overall. Accordingly, CenturyTel respectfully requests a limited waiver of the Commission's Phase II E911 requirements to allow implementation on a graduated basis to mitigate the substantial technical and financial burdens of compliance.

Respectfully submitted,

CENTURYTEL WIRELESS, INC.

A handwritten signature in dark ink, appearing to read "John Jones", is written over a horizontal line.

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Counsel for CenturyTel Wireless, Inc.

Dated: September 25, 2001



## **EXHIBIT A**

### **CenturyTel Wireless Companies**

#### **Company**

Appleton Oshkosh Neenah MSA Limited Partnership  
Cellular Mobile Systems of Michigan RSA No. 7 L.P. (d/b/a CenturyTel Wireless, Inc.)  
Cellular North Michigan Network General Partnership  
Cellutel of Biloxi, Inc. (d/b/a CenturyTel Wireless, Inc.)  
Century Cellunet of Alexandria, Inc. (d/b/a CenturyTel Wirleess, Inc.)  
Century Cellunet of Arkansas RSA #12 Cellular L.P. (d/b/a CenturyTel Wireless, Inc.)  
Century Cellunet of La Crosse Limited Partnership (d/b/a CenturyTel Wireless, Inc.)  
Century Cellunet of Michigan RSA #4, Inc.  
Century Cellunet of Michigan RSA #6 Cellular L.P. (d/b/a CenturyTel Wireless, Inc.)  
Century Cellunet of Mississippi RSA #2, Inc. (d/b/a CenturyTel Wireless, Inc.)  
Century Cellunet of Mississippi RSA #6, Inc. (d/b/a CenturyTel Wireless, Inc.)  
Century Cellunet of Mississippi RSA #7, Inc. (d/b/a CenturyTel Wireless, Inc.)  
Century Cellunet of North Arkansas Cellular L.P. (d/b/a CenturyTel Wireless, Inc.)  
Century Cellunet of North Louisiana Cellular L.P. (d/b/a CenturyTel Wireless, Inc.)  
Century Cellunet of Pine Bluff, LLC  
Century Cellunet of Saginaw MSA Limited Partnership (d/b/a CenturyTel Wireless, Inc.)  
Century Cellunet of Southern Michigan Cellular L.P. (d/b/a CenturyTel Wireless, Inc.)  
Century Cellunet of Southwest Arkansas Cellular L.P. (d/b/a CenturyTel Wireless, Inc.)  
CenturyTel Wireless of Mississippi RSA #5, LLC  
Eau Claire Cellular Telephone L.P. (d/b/a CenturyTel Wireless, Inc.)  
Jackson Cellular Telephone Company, Inc. (d/b/a CenturyTel Wireless, Inc.)  
Michigan RSA #9 Limited Partnership (d/b/a CenturyTel Wireless, Inc.)  
Pacific Telecom Cellular of Michigan, Inc. (d/b/a CenturyTel Wireless , Inc.)  
Pascagoula Cellular Partnership (d/b/a CenturyTel Wireless, Inc.)  
Wisconsin RSA #1 Limited Partnership  
Wisconsin RSA #2 L.P. (d/b/a CenturyTel Wireless, Inc.)  
Wisconsin RSA #6 L.P. (d/b/a CenturyTel Wireless, Inc.)  
Wisconsin RSA #7 L.P. (d/b/a CenturyTel Wireless, Inc.)  
Wisconsin RSA No. 4 Limited Partnership

**EXHIBIT B**

## **AFFIDAVIT**

I, Brent Austin, declare that I am Engineer III for Network Planning, with CenturyTel Service Group, LLC, responsible for reviewing new technology and its compatibility with the wireless networks of all of the CenturyTel Wireless, Inc. ("CenturyTel") operating subsidiaries and partnerships. I further declare that I have read the foregoing Petition for Waiver, and that the same is true and correct to the best of my knowledge, information, or belief. In further support of the foregoing Petition for Waiver, I hereby state as follows:

CenturyTel operates commercial mobile radio service ("CMRS") systems in six states, in rural or smaller urban areas. All of these systems utilize TDMA technology. Over the course of the last 12 months, in addition to exploring network based E911 Phase II solutions, I have repeatedly contacted companies that manufacture TDMA handsets compatible with CenturyTel's wireless systems to determine whether a TDMA E911 Phase II handset solution was available. After numerous attempts to obtain written confirmation as to whether these companies were developing E911 Phase II handset solutions, I was only able to obtain e-mail or oral statements on these vendors' plans.

The three handset vendors that I focused on, in particular, were Motorola, Nokia, and Audiovox. These vendors have consistently manufactured TDMA compatible handsets that can be integrated into CenturyTel's wireless facilities. In inquiring whether these companies were developing a TDMA E911 handset solution, the companies responded (after numerous efforts over many months to reach a final confirmation from each one) as follows: Motorola, via e-mail dated August 27, 2001, stated that "Motorola does not anticipate having a handset based solution in tdma [sic] but is working on a cdma [sic] version . . . ." Unfortunately, a CDMA E911 Phase II handset solution is not compatible with CenturyTel's TDMA systems.

Nokia refused to provide a statement in writing, but orally informed me on July 26, 2001, that although Nokia was developing a GPS E911 Phase II handset solution, it has no plans to develop a TDMA E911 Phase II handset solution. (Late in 2000, Nokia had previously suggested to CenturyTel that Nokia was developing a TDMA E911 Phase II handset solution, but apparently that did not come to pass.)

Audiovox has a flier concerning its TDM-3100G wireless telephone that is described as intended "to meet the carriers['] ALI requirements for E911." However, CenturyTel's contact at Audiovox stated in an e-mail to CenturyTel dated August 29, 2001, that he "do[es] not have an introduction date at this time."

Date: 9/24/01

  
Brent Austin  
Engineer III, Network Planning  
CenturyTel Service Group, LLC

**EXHIBIT C**



**Mr. Brent Austin**  
CenturyTel  
100 Century Park Drive  
Monroe, LA 71203

Re: E911 Phase 2 core network technology and CALEA punch list functionality

Dear Mr Austin:

In this letter, Nortel Networks details its plans for making the E911 Phase 2 core wireless network technology (E911 technology) and the CALEA punch list functionality available.

## **E911**

Nortel Networks is committed to its part in enabling an end-to-end, E911 Phase 2 location information solution. As explained in this letter, Nortel Networks will supply the E911 technology enabling wireless carriers using its DMS-MTX switch, when interworking with other parties and technologies, to convey location information to the Public Safety Answering Point (PSAP).<sup>1</sup> Despite diligent development efforts, the E911 technology will be made generally available after October 1, 2001 as detailed in this letter.<sup>2</sup>

### **Required Components and Availability Details**

The E911 technology for use with the DMS-MTX platform requires a combination of hardware and software which Nortel Networks has designed to operate in accordance with the E911 applicable J-STD-036 standard. The functional elements constituting the Nortel Networks E911 technology are switch software, RF Access system software, Mobile Positioning Center (MPC) and Positioning Determining Entity (PDE).

The E911 technology elements will be made generally available by Nortel Networks according to the following schedule.

<b>Component</b>	<b>Role</b>	<b>GA Date</b>
MTX10	Switch software	Q4 2001

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<sup>1</sup> The Nortel Networks DMS-MTX switch is generally used by carriers to support TDMA and CDMA wireless protocols. Note that the E911 technology does not support Satellite Assisted Mobile Positioning Systems (SAMPS) based TDMA handset solutions. This handset solution is not supported because Nortel Networks understands that no handset vendor plans market introduction of a SAMPS enabled handset.

<sup>2</sup> By generally available, Nortel Networks means that the product has been adequately tested, any corrections made and offered commercially to all carriers desiring to purchase or license the product or software.

NBSS10.1	RF access subsystem	Q4 2001
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Nortel Networks will make its combined MPC/PDE generally available in Q2 2002. Because the functions performed by the MPC/PDE are standards based, carriers using the Nortel Networks MTX platform may procure the necessary technology from other vendors and need not wait until Nortel Networks makes its MPC/PDE available to deploy E911. Finally, IOS version 4.0 must be deployed in carriers' networks with equipment from multiple vendors. The IOS software will become generally available in Q1 2002.

This schedule represents Nortel Networks' current plan. This plan could be altered by a number of factors, including unavailability of handsets for testing and resolution of technical issues identified through interoperability testing of the E911 technology with other vendors' technology contributions.

Even after general availability, carriers will need time to deploy the solution across the portions of their networks covered by validated PSAP requests.

### Standards

As noted, the E911 technology is standards based. Applicable standards were only approved and published last year. Generally, 18 to 24 months are needed between standard adoption and development of compatible technology. As you will note from the discussion in the above section entitled "Required Components and Availability Details", Nortel Networks has bested or equaled the usual timelines for delivery of functionality after a standard is published.

### Field Trial

Nortel Networks endorses an end-to-end field trial before a more extensive roll-out of the E911 technology takes place. The end-to-end field trial is important because, to address the overall goal of the delivery of location information to a PSAP, the E911 technology must successfully interwork with the E911 components supplied by other vendors as well as technologies supplied by other necessary parties, such as the location technology provider and the Local Exchange Carrier.

The successful conclusion of the trial will provide a validated solution across all necessary technologies and parties. To deploy a solution without an end-to-end field trial could lead to remedying the same issues multiple times in a serial fashion. Nortel Networks does not have the resources to deploy the E911 technology and then correct issues, that may well be identical, simultaneously. Other necessary parties, such as the location solution vendors and Local Exchange Carriers and even wireless carriers, may have similar limitations.

## **CALEA**

Nortel Networks will make six punch list items available in generic software release MTX10. Each item will be individually toggled. As noted above, the MTX10 generic software release will become generally available in Q4 2001, shortly after the initial FCC compliance date of Sept. 30, 2001. Any hardware necessary to achieve compliance with the punch list requirements is available now.

Nortel Networks has moved diligently to develop the CALEA punch list functionality since the standards were adopted for the punch list items in April, 2000. Nortel Networks will begin trialing the CALEA software later this summer with several customers. Nortel Networks plans to test the MTX10 CALEA software with the FBI later this year.

Nortel Networks plans to shortly provide the FCC with its delivery schedule for E911 technology and the CALEA punch list functionality. The FBI will be presented with a copy of the Nortel Networks presentation for purposes of demonstrating when the punch list features will be made available. Your company may want to contact the FBI about CALEA flexible deployment and seek an extension from the FCC in light of the availability of MTX10 after the Sept. 30 CALEA compliance date.

If you should have any questions, please contact Tony Smith, Director, Wireless Regulatory Affairs, Nortel Networks at (972) 685-8779.

Sincerely,

Nancy J. Williams  
Sr. Account Manager  
Nortel Networks



## CERTIFICATE OF SERVICE

I, Bernadette T. Clark, hereby certify that on this 25<sup>th</sup> day of September 2001, I caused copies of the foregoing Petition of Century Tel Wireless, Inc. for Limited Waiver in CC Docket No. 94-102 to be served as indicated on each of the following:

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